REMARKS:

After entry of this response, claims 1 to 8, 10, 12 to 26, and 28 to 33 are pending. Claims 1, 4, 12, 21, 25 and 26 are the independent claims and have been amended, and claims 28 to 33 have been added. Entry of this response, reconsideration and further examination are respectfully requested.

Claim Rejections

Claims 1 to 8 and 10 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,026,448 (Goldrian) in view of U.S. Patent No. 6,658,469 (Massa). Claims 12 to 26 were rejected under § 103(a) over Goldrian in view of Massa and U.S. Patent No. 6,499,028 (Brock).

Discussion

The claims are discussed below, grouped according to independent claim.

Claims 1 to 3 and 28: Claim 1 is reproduced here as amended:

> 1. A method of sending data between a client and a server using at least one of plural data buffers of different sizes in said client and at least one of plural data buffers of different sizes in said server, comprising steps of:
>
> sending, from said client to said server, an address of a client data buffer located within said client, said address of said client data buffer for a data transfer responsive to a size of a data block to be transferred; and
>
> transferring said data block between said client and said server using said client data buffer and a server data buffer from among the plural data buffers in said client and the plural data buffers in said server, said client data buffer and said server data buffer matched to a size of data blocks to be transferred into or out of those data buffers.

The applied art is not seen to disclose or to suggest the foregoing features of claim 1, at least with respect to "said address of said client data buffer for a data transfer responsive to a size of a data block to be transferred."

The Office Action acknowledged that Goldrian does not teach this feature, as follows:

> However, Goldrian does not explicitly disclose sending, from said client to said server, an address of a client buffer located within said client, *said address of said client data buffer for a data transfer responsive to a size of a data block to be transferred*; and transferring said data block between said client and said server using said client data buffer and a server data buffer from among the plural data buffers in said client and the plural data buffers in said server, said client data buffer and said server data buffer matched to a size of data blocks to be transferred into or out of those data buffers.

Office Action, page 3 (emphasis added).

Massa was cited for teaching this feature, as follows:

> In the same field of endeavor, Massa discloses a data transfer between two applications or devices 132 and 136 (application 136 is considered as a client and application 132 is a server) (Abstract, col. 11, lines 10-20 and Fig. 5). Massa discloses sending an initial message, which includes information to indicate the size of the data to be transferred from the switch 126 of application 136 (client) to the switch 120 of application 132 (server) via message buffers 148 and 125 (data buffers) (col. 12, lines 13-17). Massa discloses each application's set of receiving buffers may also be large or small (plural data buffers of different sizes in the client and the server) (col. 11, lines 31-53). Also, Massa discloses the remote switch 126 of the server transfers an amount of data equal to the size of the receiving buffer 134 (client's buffer) from the transmission buffer 138 (server's buffer) into the set of receiving buffers 134 (col. 12, lines 42-59).

Office Action, page 3.

Applicant respectfully points out that nothing in this citation indicates where Massa teaches that *an address* of a client data buffer for a data transfer *is responsive to a size of a data block to be transferred.* In fact, the word "address" does not even appear in this citation. Applicant has reviewed Massa again and simply does not see any such teaching in Massa.

If the Office maintains the position that Massa teaches the feature of "said address of said client data buffer for a data transfer responsive to a size of a data block to be transferred," then Applicant respectfully requests for the Office to specify where Massa is alleged to teach this feature so that Applicant can more fully understand the Office's position.

Turning to new claim 28, that claim recites that "said data buffers in said client include different sizes and alignments than said data buffers in said server." This feature is useful, for example, if a server is going to conduct data transfers with different clients that have different sizes and arrangements of data buffers. The server would be able to have suitable data buffers for such data transfers with such clients. None of the cited references is seen by Applicant to contain any such teaching.

In view of the foregoing, claim 1 and its dependent claims are allowable over the applied art. Accordingly, withdrawal of the outstanding rejection and allowance of these claims are respectfully requested.

Claims 4 to 8, 10, and 29: Claim 4 is reproduced here as amended:

> 4. A system including
> a client and server;
> a NUMA communication link coupled to said client and server; and

> plural data buffers of different sizes in said client and plural data buffers of different sizes in said server for data transfers between said client and said server using said NUMA communication link;
>
> wherein when data is transferred between said client and said server using said data buffers, an address of a client data buffer located within said client is sent from said client to said server, with said address of said client data buffer for a data transfer responsive to a size of a data block to be transferred, and said client data buffer and a server data buffer from among the plural data buffers are used to transfer said data block, with said client data buffer and said server data buffer matched to a size of said data block to be transferred into or out of those data buffers.

Substantially as discussed above with respect to claim 1, the applied art is not seen to disclose or to suggest the foregoing features of claim 4, at least with respect to "said address of said client data buffer for a data transfer responsive to a size of a data block to be transferred." The applied art also is not seen to disclose or to suggest new claim 29's feature that "said data buffers in said client include different sizes and alignments than said data buffers in said server." Accordingly, claim 4 and its dependent claims are believed to be allowable over the applied art. Withdrawal of the outstanding rejection and allowance of these claims are therefore respectfully requested.

Claims 12 to 20 and 30: Claim 12 is reproduced here as amended:

> 12. A system including
>
> a server, said server having a memory including a client communication region and a data transfer region, said data transfer region having plural data buffers of different sizes for data transfers to and from a client, at least some of said data buffers matched to different sizes of data blocks to be transferred into or out of those data buffers and matched to different sizes of data buffers in said client that are also matched to said different sizes of said data blocks to be transferred; and
>
> a remote DMA communication link coupled to said data transfer region;
>
> wherein said client communication region includes information regarding a data transfer into or out of said data transfer region; and

> wherein an address of one or more of said server data buffers for said data transfer is selected for a data transfer responsive to a size of data blocks for said data transfer.

Substantially as discussed above with respect to claim 1, the applied art is not seen to disclose or to suggest the foregoing features of claim 12, at least with respect to "wherein an address of one or more of said server data buffers for said data transfer is selected for a data transfer responsive to a size of data blocks for said data transfer." The applied art also is not seen to disclose or to suggest new claim 30's feature that "said data buffers in said client include different sizes and alignments than said data buffers in said server." Accordingly, claim 12 and its dependent claims are believed to be allowable over the applied art. Withdrawal of the outstanding rejection and allowance of these claims are therefore respectfully requested.

Claims 21 to 24 and 31: Claim 21 is reproduced here as amended:

> 21. A method including
> communicating file system requests and responses between a client and a file server;
> sending data between said client and said file server using a memory access operation involving at least one of plural data buffers of different sizes both in said client and in said file server, at least some of said data buffers both in said client and in said file server matched to sizes of data blocks to be transferred into or out of said data buffers, wherein selection of an address of one or more of said data buffers for a data transfer is responsive to information in said requests or said responses and is responsive to a size of data blocks for said memory access operation.

Substantially as discussed above with respect to claim 1, the applied art is not seen to disclose or to suggest the foregoing features of claim 21, at least with respect to "selection of an address of one or more of said data buffers for a data transfer ... is responsive to a size of data blocks for said memory access operation." The applied art also is not seen to disclose or to suggest

new claim 31's feature that "said data buffers in said client include different sizes and alignments than said data buffers in said server." Accordingly, claim 21 and its dependent claims are believed to be allowable over the applied art. Withdrawal of the outstanding rejection and allowance of these claims are therefore respectfully requested.

Claim 25 and 32: Claim 25 is reproduced here as amended:

> 25. A method including
> communicating database requests and responses between a client and a database server;
> sending data between said client and said database server using a memory access operation involving at least one of plural data buffers of different sizes both in said client and in said database server, at least some of said data buffers both in said client and in said database server matched to sizes of data blocks to be transferred into or out of said data buffers, wherein selection of an address for one or more of said data buffers for a data transfer is responsive to information in said requests or said responses and is responsive to a size of data blocks for said memory access operation.

Substantially as discussed above with respect to claim 1, the applied art is not seen to disclose or to suggest the foregoing features of claim 25, at least with respect to "selection of an address of one or more of said data buffers for a data transfer ... is responsive to a size of data blocks for said memory access operation." The applied art also is not seen to disclose or to suggest new claim 32's feature that "said data buffers in said client include different sizes and alignments than said data buffers in said database server." Accordingly, claim 25 and its dependent claim 32 are believed to be allowable over the applied art. Withdrawal of the outstanding rejection and allowance of these claims are therefore respectfully requested.

Claim 26 and 33: Claim 26 is reproduced here as amended:

> 26. A method including

> communicating requests and responses between a client and a server;
> sending data between said client and said server using a memory access operation involving at least one of plural data buffers of different sizes both in said client and in said server, at least some of said data buffers both in said client and in said server matched to sizes of data blocks to be transferred into or out of said data buffers, wherein selection of an address for one or more of said data buffers for a data transfer is responsive to information in said requests or said responses and is responsive to a size of data blocks for said memory access operation.

Substantially as discussed above with respect to claim 1, the applied art is not seen to disclose or to suggest the foregoing features of claim 26, at least with respect to "selection of an address of one or more of said data buffers for a data transfer ... is responsive to a size of data blocks for said memory access operation." The applied art also is not seen to disclose or to suggest new claim 33's feature that "said data buffers in said client include different sizes and alignments than said data buffers in said database server." Accordingly, claim 25 and its dependent claim 33 are believed to be allowable over the applied art. Withdrawal of the outstanding rejection and allowance of these claims are therefore respectfully requested.

No Admission

Applicant's decision not to argue each of the dependent claims separately is not an admission that the subject matter of those claims is taught by the applied art.

Closing

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney can be reached at (614) 205-3241. All correspondence should continue to be directed to the address indicated below.

Respectfully submitted,

Dane C. Butzer

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Dane C. Butzer
Reg. No. 43,521

Swernofsky Law Group PC
P.O. Box 390013
Mountain View, CA 94039-0013
(650) 947-0700